IN THE CLAIMS

Please amend the following of the claims which are pending in the present application:

1. (Original)   A method of processing an experimental data-set comprising inlier data points representative of a model and outlier data points which are not representative of the model, to identify which of the data points are the said outlier data points, the model being a predetermined function of K unknown parameters, the method comprising:

generating a plurality of subsets of the data points, each subset comprising at least K' data points, where K' is the number of data points which will uniquely determine the K parameters;

for each subset estimating the K parameters of the model;

identifying at least one location in the parameters space at which the estimates are clustered; and

identifying as said outlier data points data points which are not representative of the model as defined based on peak parameter values corresponding to said location.

2. (Original)   A method according to claim 1 in which each of the subsets comprises exactly said K' or more than said K' data points.

3.　(Original)　A method according to claim 2 in which all possible subsets with at least said K' points are generated.

4.　(Original)　A method according to claim 1 in which the said peak parameters are identified based on histogram analysis, including the following steps:

　　1)　generating all the possible said subsets from the N input data points, with each said subset having same number of data points and containing at least said K' data points, the number of said subsets being denoted as M;

　　2)　for each said subset, calculating the K parameters of the said subset as a respective point in the said K-dimensional parameter space;

　　3)　plotting a histogram of the said parameter points;

　　4)　finding the peaks of the said histogram and finding the said peak parameters $(p_1^*, p_2^*, ..., p_K^*)$ from all the possible candidate peak parameters which are parameters corresponding to different histogram peaks.

5.　(Original)　A method according to claim 4 in which the said histogram in the said K-dimensional parameter space is obtained either by

　　1)　a user specifying the neighborhood sizes in each coordinate of the said parameter points in the said K-dimensional parameter space, or

　　2)　deriving the neighborhood sizes from the said M parameter points in the said K-dimensional parameter space automatically using said data points.

6.   (Currently amended)   A method according to claim 4 ~~or claim 5~~ in which:

1)   if there is only one peak in the said histogram of the said parameter points and the said number of occurrence is not less than 3, all the said parameter points within the said neighborhood sizes of the said candidate peak parameters are taken as the said cluster location, and the sole candidate peak parameters are taken as the said peak parameters; <u>and</u>

2)   if there are more than one peak in the said histogram of the said parameter points, either (i) the said parameter point with said maximum number of occurrence is taken as the said peak parameters and all those said parameter points within the said neighborhood sizes of the said peak parameters are taken as the said cluster location, or (2) the said parameter point with maximum sum of said number of occurrence within a neighborhood are taken as the said peak parameters, and all those said parameter points within the said neighborhood sizes of the said peak parameters are taken as the said cluster location.

7.   (Original)   A method according to claim 1 in which said data points are categorised as said outlier data points by:

1)   identifying those said subsets with the said parameter point P_i being close to the said peak parameters as inlier subsets, according to whether P_i satisfies the following inequalities simultaneously

$$|p_1^* - p_1(i)| <= \Delta_1, |p_2^* - p_2(i)| <= \Delta_2, ..., |p_K^* - p_K(i)| <= \Delta; \text{ and}$$

2) identifying any said data point contained in any of the said inlier subsets as an inlier data point and identifying the rest of said N input data points as outlier data points.

8. (Currently amended) A method of estimating a model from a data-set comprising the said inlier data points representative of the model and the said outlier data points which are not representative of the model, the method comprising processing the data-set using a method according to ~~any of claims 1 to 7~~ claim 1, and then estimating the K parameters of the model using the identified said inlier data points.

9. (Original) An apparatus for determining, among an experimental data-set comprising the said inlier data points representative of a model and the said outlier data points which are not representative of the model, the model being defined by K parameters where K is a positive integer, the apparatus comprising a processor arranged to perform the steps of:

generating a plurality of subsets of the data points, each subset comprising at least K' data points;

for each subset estimating the K parameters of the model;

identifying at least one location in the parameters space at which the estimates are clustered; and

identifying as said outlier data points which are not representative of the model as defined based on peak parameter values corresponding to said location.

10. (Original)   An apparatus according to claim 9 in which said processor is arranged to generate said subsets as subsets which each comprise at least K' data points.

11. (Original)   An apparatus according to claim 9 in which said processor is arranged to generate all possible subsets each with at least K' data points.

12. (Currently amended)   An apparatus according to ~~any of claims 9 to 11~~ claim 9, further comprising means for estimating the parameters of the model using the identified said inlier data points.